

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1-3. (Cancelled)

4. (Currently Amended) An illumination apparatus, comprising:

a power source device, configured to ~~provide~~ supply a rated current to a plurality of different exchangeable illumination heads having different rated currents, comprising a current controller an input terminal, and

an illumination head, connected to the power source device, and comprising a current detection resistor that detects a current flowing through a power supply circuit, at least one light emitting device ~~being~~ connected to the power supply circuit in the illumination head, and an output terminal which connects to the input terminal of the power source device and outputs a voltage drop across the current detection resistor,

wherein a resistance value of the current detection resistor generates a voltage drop equal to a predetermined reference potential when a rated current is supplied to each light emitting device, and

the current controller controls the supplied current such that the voltage drop generated across the current detection resistor is equal to the predetermined reference potential.

5. (Currently Amended) An illumination head, comprising:

at least one light emitting device connected to a power supply circuit; ~~and~~

a current detection resistor that detects a current flowing in the power supply circuit, a resistance value of the current detection resistor generating a voltage drop equal to a predetermined reference potential when a rated current is supplied to each light emitting device[[],]; and

an output terminal that outputs a voltage drop across the current detection resistor,

wherein the illumination head is connectable to a power source device configured to ~~provide~~ supply a rated current to a plurality of different exchangeable illumination heads having different rated currents.

6. (Currently Amended) A power source device that supplies power to an illumination head, comprising:

a current controller[[],]; and

an input terminal,

wherein the illumination head includes a current detection resistor that detects a current flowing to a power supply circuit in which at least one light emitting device is connected and an output terminal that outputs a voltage drop across the current detection resistor, a resistance value of the current detection resistor generating a voltage drop equal to a predetermined reference potential when a rated current is supplied to each light emitting device,

the input terminal connects to the output terminal,

the current controller is disposed such that the voltage drop generated across the current detection resistor is equal to the predetermined reference potential when the illuminating head is connected to the power source device, and

the power source device is configured to ~~provide~~ supply a rated current to a plurality of different exchangeable illumination heads having different rated currents.

7. (Previously Presented) An illumination apparatus as recited in claim 4, wherein the supplied current is controlled to be a rated current of the illumination head when the illumination head is connected to the power source device.

8. (Previously Presented) An illumination head as recited in claim 5, wherein the supplied current is controlled to be a rated current of the illumination head when the illumination head is connected to the power source device.

9. (Previously Presented) A power source device as recited in claim 6, wherein the supplied current is controlled to be a rated current of the illumination head when the illumination head is connected to the power source device.

10-12. (Cancelled)

13. (Previously Presented) An illumination apparatus as recited in claim 4, wherein a constant voltage is output from the current detection resistor for each of a plurality of illumination heads with different rated currents.

14. (Previously Presented) An illumination head as recited in claim 5, wherein a constant voltage is output from the current detection resistor for each of a plurality of illumination heads with different rated currents.

15. (Previously Presented) A power source device as recited in claim 6, wherein a constant voltage is output from the current detection resistor for each of a plurality of illumination heads with different rated currents.